carotid plaque surface (smooth, irregular, ulcerated), NIHSS group score before surgery (0 or TIA, 1-3, 4-6, ≥7) and presence of ischemic lesions at preoperative CT scans for analysis. Significance threshold was set at $P<.05$.

Results: Eighty-three patients out of 203 presented preoperative ischemic brain lesions (40.9%). In 48.3% of patients an irregular plaque surface was recorded, in 41.8% a ulcerated surface and in 9.9% a smooth surface. At between NHISS groups analysis ulcerated plaque surface wasmore frequent in TIA patients ($P = .05$). In those patients the presence of ulcer in the plaque surface was strongly related to absence of ischemic brain lesions ($P = .05$). In stroke patients (NIHSS>0) the ulcerated or irregular plaque surface was slightly significantly associated to presence of preoperative brain ischemic lesions, particularly in NIHSS 1-3 group patients ($P = .08$).

Conclusions: Aside from stenosis percentage, neurological transient and permanent brain symptoms are highly related to carotid plaque surface. Ulcerated carotid plaque surface can be responsible for plaque's micro-debris embolization or fresh thrombus formation whose brain damage mechanisms can lead to different neurological symptoms and CT scans findings.

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PS54.

Risk Scoring System to Predict Three-Year Survival in Patients Treated for Asymptomatic Carotid Stenosis

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Objectives: To identify risk factors compromising 3 years survival in treated patients with asymptomatic carotid disease in complying with recently updated guidelines from the Society for Vascular Surgery.

Methods: Outcomes of 504 patients who underwent carotid intervention for asymptomatic carotid disease in 10 years (1999-2008) were analyzed. Hospital computerized medical records were reviewed. Social Security Death Index was queried for mortality. Patients lost to follow up before 3 years post procedure were excluded. After multivariable Cox regression analysis was done, a score was assigned for each risk factor (RF): hazard ratio (HR) 1.5-2.0 = RF 1; HR 2.1-3.0 = RF 2; HR 3.1-4.0 = RF 3. Then a Kaplan Meier plot analyzed survival differences.

Results: Fifteen percent of the patients did not survive beyond 3 years post procedure. Age > 80 years (HR 2.0, $P = .01$, RF = 1), Chronic obstructive pulmonary disease (HR 3.6, $P = .001$, RF = 3), Chronic kidney disease (CKD) stage 3 (HR 2.0 $P = .07$, RF = 1), CKD stage 4 (HR 3.3, $P = .04$, RF = 3), Coronary artery disease (HR 2.46, $P = .001$, RF = 2) and Diabetes Mellitus (HR 1.8, $P = .02$, RF = 1) negatively influenced 3 year survival.

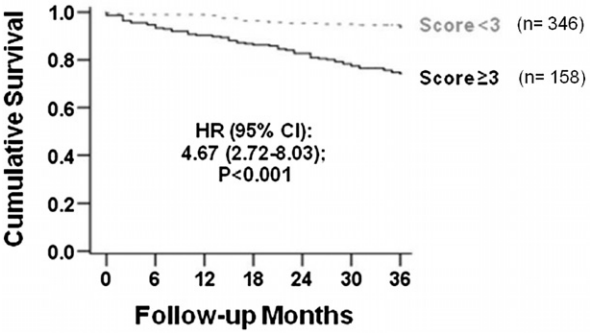

Fig. Kaplan-Meier Survival Plots by Risk Score

Thirty days mortality rate was 0.9% and was not influenced by score values; however, a cumulative score < 3 was associated with 3 year survival of 93%.

Conclusions: Despite low 30 day mortality rate, increasing risk factors are associated with decreased 3 year survival. This finding may impact clinical decision for management of asymptomatic carotid disease.

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C9d: Poster Session - Cerebrovascular including Great Vessels (2)

PS56.

Impact of Distal Protection Filter Design in Thirty-Day Outcomes of Carotid Artery Stenting

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Objectives: To review retrospectively records of patients treated with carotid artery stenting (CAS) to investigate correlations between clinical variables, distal protection filter (DPF) characteristics, and 30-day peri/post-procedural outcomes.

Methods: This is a multicenter, single-arm study of DPF-protected CAS in the Pittsburgh region between 2000 and 2011. Analysis of peri/post-procedure complications included myocardial infarction (MI), transient ischemic attacks (TIA), stroke, death, and a composite of all adverse events (AE). Characteristics for the DPFs were previously determined in vitro and were used to find correlations with CAS outcomes. Univariate, multivariate, and goodness-of-fit analyses were performed.

Results: 731 CAS procedures employing six different DPF were analyzed. Peri/post-procedural AE included 19 TIAs (2.6%), 38 strokes (5.2%), 1 MI (.1%), 19 deaths